

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application.

1-25. (Canceled)

26. (Currently Amended) ~~The electronic control unit as claimed in claim 1~~ An electronic control unit for controlling an ignition timing of an internal-combustion engine, the electronic control unit being programmed to:

calculate an ignition timing value of the engine by using a first correction term proportional to a controlled variable and a second correction term proportional to an integration of differences between said controlled variable and a desired value,

wherein the ignition timing value IGAST is calculated by the following expression:

$$\text{IGAST} = -K_p \times \text{NE} - K_i \times \Sigma(\text{NE} - \text{NOBJ}) + \text{IGINT}$$

where K_p is a correction coefficient for a proportional term, NE is a rotational speed of the engine, K_i is a correction coefficient for a integral term, NOBJ is a desired rotational speed of the engine, and IGINT is a constant.

27. (Currently Amended) ~~The electronic control unit as claimed in claim 2,~~ claim 26, further comprising a detector for detecting a rotational speed of the engine, said rotational speed being the controlled variable and the desired value being a target rotational speed.

28. (Currently Amended) ~~The electronic control unit as claimed in claim 2,~~ claim 26, wherein the electronic control unit is configured to compare an ignition timing value obtained by a feed-forward operation based on conditions of the engine and the

ignition timing value obtained by said expression, and to use the smaller timing value for controlling the ignition timing of the engine.

29. (Currently Amended) The electronic control unit as claimed in claim-4 claim 28, wherein the value of the ignition timing value that is obtained by said expression is used for controlling the ignition timing immediately after the engine starts.

30. (Canceled)

31. (Currently Amended) ~~The electronic control system as claimed in claim-6~~
An electronic control system for controlling an ignition timing of an internal-combustion engine, comprising:

means for calculating an ignition timing value of the engine by using a first correction term proportional to a controlled variable and a second correction term proportional to an integration of differences between said controlled variable and a desired value.

wherein the ignition timing value IGAST is calculated by the following expression:

$$\text{IGAST} = -K_p \times \text{NE} - K_i \times \Sigma(\text{NE} - \text{NOBJ}) + \text{IGINT}$$

where K_p is a correction coefficient for a proportional term, NE is a rotational speed of the engine, K_i is a correction coefficient for an integral term, NOBJ is a desired rotational speed of the engine, and IGINT is a constant.

32. (Canceled)

33. (Currently Amended) ~~The method as claimed in claim-8,~~ A method for controlling an ignition timing of an internal-combustion engine, comprising:

calculating an ignition timing value of the engine by using a first correction

term proportional to a controlled variable and a second correction term proportional to an integration of differences between said controlled variable and a desired value,

wherein the ignition timing value IGAST is calculated by the following expression:

$$IGAST = -K_p \times NE - K_i \times \Sigma(NE - NOBJ) + IGINT$$

where K_p is a correction coefficient for a proportional term, NE is a rotational speed of the engine, K_i is a correction coefficient for an integral term, $NOBJ$ is a desired rotational speed of the engine, and $IGINT$ is a constant.

34. (Canceled)

35. (Currently Amended) ~~The medium as claimed in claim 10,~~ A computer readable medium comprising a computer program which is configured to cause a processor to execute a function of controlling an ignition timing of an internal-combustion engine, said program comprising:

a computer program code for calculating an ignition timing value of the engine by using a first correction term proportional to a controlled variable and a second correction term proportional to an integration of differences between said controlled variable and a desired value,

wherein the ignition timing value IGAST is calculated by the following expression:

$$IGAST = -K_p \times NE - K_i \times \Sigma(NE - NOBJ) + IGINT$$

where K_p is a correction coefficient for a proportional term, NE is a rotational speed of the engine, K_i is a correction coefficient for an integral term, $NOBJ$ is a desired rotational speed of the engine, and $IGINT$ is a constant.